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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/557,643	04/25/2000	Shulong Li	2129A	9252

7590

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EXAMINER
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SINGH, ARTI R

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 05/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/557,643

Applicant(s)

LI, SHULONG

Examiner

Ms. Arti Singh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) \_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/14/06 has been entered.

2. The amendment to the claims has been entered, however it does not have support in the specification, and is thus considered new matter. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. As stated above there is no support the amendment of a "uniform film". If the Examiner is incorrect please point out by page and line as to where there is support for such a limitation. For the purposes of examination the Examiner will act as if Applicant is referring to their film layer as pre-made film, and not one that is co-extruded.

4. With regard to the traversal that the cited art (in combination) refers to a coating rather than a film. Applicant is directed to their own specification where they disclose their coating (film) impregnates the fabric to form an impermeable barrier just as the film of the

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present invention does. Support for this deduction can be found in applicant's own admission that the film requires heat and pressure in order for the film to "cement between and to the individual yarns of the fabric (applicant's disclosure page 11, line 14). Additionally, post processing of heating and passing them through rolls would mesh the coating/film into the fabric, and as stated before, a skilled artisan would not be able to tell whether the coating was applied by means of extrusion or via a pre made film. Therefore, the previously made rejections are maintained.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 4 and 12 recites the limitation "coated fabric" in line 1. There is insufficient antecedent basis for this limitation in the claim. Please correct.

***Claim Rejections - 35 USC § 103***

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action. (rejection repeated)

8. Claims 1-3, 8-11, and 16-17 are rejected under 35 U.S.C. 102(e) as being anticipated by or in the alternative under 35 USC 103 (a) as obvious over VEIGA et al (USPN 6,239,046).

Veiga et al. teach a coated textile fabric for use in an airbag (air curtain- column 1, line 28 & column 2, line 34, which is also synonymous in the art as a side curtain, as it is positioned laterally to the occupant) having a plurality of polymeric layers coated thereto (column 1, lines 5-10). The fabric, being a woven, knit or nonwoven textile is first coated with a polyurethane layer, which is then coated with a layer of elastomeric polysiloxane (column 1, lines 50-55). The polyurethane coating weight applied is about 0.3-ounces/square yard to about 1.5-ounces/square yard with 0.5-ounces/square yard preferred (column 1, lines 57-59). In an alternative embodiment as shown in column 3, lines 39-50, the fabric may be

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coated on both sides with a polyurethane coating which is similar in its composition and physical properties to the first polyurethane layer. With regard to Applicant's claims, the required coating of both the polyurethane layers at the most would add up to 1.5 ounces per sq. yd + 0.5 oz. per sq. yd = 2.0 oz. per sq. yd (Patent Claims 22 & 23). Thus, Veiga et al. teach a side impact air bag having at least one layer of a polyurethane coating wherein the coating has an add-on weight of at least 0.3 to a bout 2.5 ounces/ square yard. The composite may be laminated on both sides with polyurethane coatings.

Veiga et al. disclose what is set forth above, however Veiga et al. fail to disclose or do not explicitly teach the claimed airbag having the leak down time after inflation nor the elongation at break however it is reasonable to presume that the said featured properties are inherent to Veiga et al. Support for said presumption is found in the use of like materials i.e. a side airbag coated with polyurethane coating system having an add-on weight of at most 3.0 oz/yd<sup>2</sup>, which would result in having this property. The burden is shifted to Applicant to prove otherwise. In re Fitzgerald 205 USPQ 495. Alternatively, the presently claimed properties of the leak down time after inflation nor the elongation at break would obviously have been present, along with the tensile strength, once the Veiga product was provided. See In re Best, 195 USPQ 433.

It should be noted that the other references by Veiga et al, namely USPN 6,770,578 and USPN 6,734,123 could also have been cited as 102/103 rejections however it would be redundant.

9. Claims 1-17 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over USPN 5,989,660 to Moriwaki et al.

Moriwaki et al. discloses a fabric for use in an airbag comprising a fibrous substrate having adhered to it a covering layer made of a thermoplastic synthetic resin (abstract).

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The fibrous substrate or fabric used by patentee can be a woven, knitted or nonwoven fabric formed from polyamide fibers (column 2, lines 33-36). The fibers that make up the fabric have a denier of 200-500 (column 3, lines 8-10) and a cover factor of 1700 to 2500 denier (column 2, line 10). The fibrous substrate can be woven from polyamide fibers of nylon 6,6 (column 2, lines 33-35), wherein the monofilaments are 6 g/denier or more (column 2, line 65). The synthetic thermoplastic resin that forms said covering layer is found to be equivalent to Applicant's film layer, and may be polyurethane, polyester, polyamide, acrylic polymer, polyethylene or polypropylene, of which polyurethane and polyester are the most preferred (column 3, lines 20-25). The average thickness of the synthetic thermoplastic film formed on the surface of the woven substrate is 10 microns or less, which when converted equals 0.393 mils, and thus meets the limitations which require the film thickness to be from 0.1 to about 3.5 mils thick.

The air bag produced using such a base fabric for air bags can be used as an air bag, for example, for a driver's seat, an air bag for a front passenger's seat, an air bag for a rear seat or an air bag for expansion from a position laterally of an occupant of a seat (column 4, lines 31-39).

Veiga et al. disclose what is set forth above, however Veiga et al. fail to disclose or explicitly teach the claimed airbag having the leak down time after inflation nor the elongation at break properties. However it is the Examiner's position that it is reasonable to presume that the said featured properties are inherent to Veiga et al. Support for said presumption is found in the use of like materials i.e. a side airbag coated with polyurethane coating system having an add-on weight of at most 3.0 oz/yd<sup>2</sup>, which would result in having this property. The burden is shifted to Applicant to prove otherwise. In re Fitzgerald 205 USPQ 495. Alternatively, the presently claimed properties of the leak down time after

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inflation nor the elongation at break would obviously have been present, along with the tensile strength, once the Veiga product was provided. See *In re Best*, 195 USPQ 433.

***Claim Rejections - 35 USC § 103 (new)***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5863068 issued to Breed et al. in view of USPN 5,989,660 to Moriwaki et al.

Breed et al disclose inflatable occupant restraint devices wherein the airbags are composites made up of films or fabric/films. The films may be laminated on to the fabric and are pre made (column 10). Said films may be polyurethanes. In column 5, the instant patent states that the film on film airbags have a thickness of 250 micrometers. In columns 19 and 20, patentee discloses that when a fabric is used the thickness is further reduced, and this reduction is compensated by the film layer, and further teaches that the thickness can be modified as needed. Therefore a skilled artisan at the time the invention was made would have found it obvious to have reduced the thickness of the film layer in the airbag composite, motivated by the reasoned expectation of fitting the side cushion airbag into its housing. Breed et al fail to teach the specifics of the their fabric layer. This is remedied by Moriwaki who teaches an airbag comprising a fibrous substrate having adhered to it a covering layer made of a thermoplastic synthetic resin (abstract). The fibrous substrate or fabric used by patentee can be a woven, knitted or nonwoven fabric formed from polyamide fibers (column 2, lines 33-36). The fibers that make up the fabric have a denier of 200-500

(column 3, lines 8-10) and a cover factor of 1700 to 2500 denier (column 2, line 10). The fibrous substrate can be woven from polyamide fibers of nylon 6,6 (column 2, lines 33-35), wherein the monofilaments are 6 g/denier or more (column 2, line 65). Therefore a person having ordinary skill in the art at the time the invention was made would have found it obvious to have used the fabric layer of Moriwaki in the airbag of Breed. One would have been motivated to do this in order to provide an airbag that has strength and durability, and could be used to produce a driver's seat, a front passenger's seat, an air bag for a rear seat or an air bag for expansion from a position laterally of an occupant of a seat (column 4, lines 31-39).

The combination of Breed and Moriwaki both do not explicitly teach the claimed airbag having the leak down time after inflation nor the elongation at break properties. However it is the Examiner's position that it is reasonable to presume that the said featured properties are inherent to the combination of Breed and Moriwaki. Support for said presumption is found in the use of like materials i.e. a side airbag coated with polyurethane coating system, which would result in having this property. The burden is shifted to Applicant to prove otherwise. In re Fitzgerald 205 USPQ 495. Alternatively, the presently claimed properties of the leak down time after inflation nor the elongation at break would obviously have been present, along with the tensile strength, once the Breed /Moriwaki airbag was provided. See In re Best, 195 USPQ 433.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ms. Arti Singh whose telephone number is 571-272-1483. The examiner can normally be reached on M-T 9-5:30pm.



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ms. Arti Singh  
Primary Examiner  
Art Unit 1771

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